

## Mind Hacks

Neuroscience and psychology news and views.

# Encultured drug cravings and dopamine



Scientific American Mind's *Mind Matters* blog has a great [interview](#) with neuroanthropologist [Daniel Lende](#) who discusses why we need an understanding of both culture and neuroscience to get a fully integrated account of human thought and behaviour.

Lende discusses his work on integrating cultural factors and the neuroscience of the dopamine reward system in a study of addiction in Colombian teenagers.

A common approach in neuroscience is to take experiences labelled by everyday words and try and find what changes in the brain when someone says they are having the experience.

The problem is that the definitions of the labelling words may be indistinct ('love'), incoherent ('belief') or understood differently in different cultures ('anxiety').

The approach Lende advocates is to take an anthropological approach to the problem. In other words, attempting to understand what a concept or label means in a particular culture so the neuroscience can be integrated in full knowledge of the diversity of the experience.

*This predicament is where neuroanthropology can be so helpful. In order to draw connections between neuroscience and real world situations, I went out and talked to people to understand craving and addiction from their point of view. This type of real-world data can both challenge and inform ideas based on animal models and neuroimaging studies.*

*In translating the dopamine research, my work with adolescents proved crucial. They knew what they experienced far better than I did. Using systematic interviews across a range of involvement with drugs (hard-core users to having never tried drugs), I saw three areas of overlap between research on dopamine and compulsive involvement with addictive substances.*

*First was the emphasis that researchers placed on 'wanting'. I was lucky in Colombia; addicted adolescents often described their experiences as 'querer más y más', to want more and more. Second, dopamine affects shifts in attention, which meant that some adolescents couldn't focus on anything else when they knew an opportunity to consume was about to come along. Third, adolescents described a sense of being pushed toward something, 'an urge that rose up without conscious desire.*

You may recognise Lende from the excellent *Neuroanthropology* [blog](#) and he also discusses some of the work of his co-bloggers in the interview, including some fascinating work looking on how people learn balance.

However, if you're interested in more details about the study on Colombian teenagers, he's recently posted some [more information](#) including links to the full text of the papers.

[Link](#) to SciAmMind *Mind Matters* interview.

[Link](#) to *Neuroanthropology* post on Colombia study.

[Link](#) to follow-up and more information.